Supplyframe

Supplyframe CPQ
Data Specification Guidelines

Version 1.27

Company Confidential

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Welcome

This document will outline Supplyframe's data feed requirements that are necessary to start using Supplyframe CPQ. The same schema will be used for both Internal Sales as well as Self-Service components of the solution.

If you have any questions regarding the content of this document, please contact our team at support@supplyframe.com.

Overview

Supplyframe CPQ is powered by data from 19 data feeds:

- catalog
- inventory
- customer_contacts
- order_history
- book_price
- packing_method
- assets
- catalog_metadata
- customer_master
- cross_references
- registration_price
- web_price
- currency_conversion_rate
- customer_part_numbers
- customer_metadata
- quote_history
- contract_price
- standard_cost
- items_subitems

However, not all feeds are required – see the Required and Recommended Feeds section below to understand which feeds you require for your Supplyframe CPQ solution.

The key fields that relate the tables are customer_id and part_id. These values must be consistent across all tables.

Options for populating Internal Sales and Self-Service with your data include manual in-app-data-management or automatic feed import via ETL. Your chosen data population method will be configured for your instance of Supplyframe CPQ during the onboarding process.

If the automatic feed import method is chosen, we request that customers run regular uploads of each data feed to a location that Supplyframe can access. The Data Feed Recommendations section below provides our best practices for this process.

Required and Recommended Feeds

The sections below describe the feeds that are required vs. recommended in order to set up your instance of Internal Sales and/or Self-Service. For more information on each specific table, see the Data Definitions section below.

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Internal Sales

The Internal Sales component of Supplyframe CPQ requires the five key tables described below:

Feed Name	Description
catalog	Master feed that contains basic part information such as part_id, manufacturer_code, manufacturer_name, manufacturer_part_no, etc.
customer_master	Master table containing basic customer account information such as unique identifiers for customer accounts and customer names
customer_contacts	Holds data related to contacts within customer accounts
inventory	Contains available inventory for your part_id's in catalog
At least one of the following pricing or cost related tables: ● web_price ● book_price ● cost	**web_price**: Public published price shown on website, typically priced higher than book pricing. Note, if you are currently sending Supplyframe a web price feed for Findchips, a separate feed must be created for Supplyframe CPQ. **book_price**: Standard resale price, similar to MSRP, as published in a catalog, price list, or advertisement before any discounts are taken. **standard_cost**: Set cost paid to manufacturer or supplier to procure item inventory.

The following feeds are not required, but are recommended in order to provide the best experience for your team:

Feed Name	Description
catalog_metadata	Contains additional display-only data related to parts in catalog
items_subitems	Contains item-subitem relationships between parts in the catalog table
customer_metadata	Contains additional display-only data related to customers in customer_master (data in this feed will only populate Internal Sales)
contract_price	Contains contract pricing specific to your customer accounts
inventory	Contains available inventory for your part_id's in catalog
cross_references	Contains competitor cross references to your part_id's
quote_history	Contains transaction data related to prior quotes (data in this feed will only populate Internal Sales)
order_history	Contains transaction data related to prior orders (data in this feed will only populate Internal Sales)
Additional pricing or cost tables	Outside of those discussed in the required feeds section above, remaining pricing include: contract_price and registration_price
packing_method	Contains packing methods used for your catalog items
currency_conversion_rate	Contains conversion rates between your defined default currency and other currencies that must be supported in CPQ
assets	Contains URLs for digital assets that can be accessed within the solution

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Self-Service

The Self-Service component of Supplyframe CPQ requires at least two tables which are described below:

Feed Name	Description
catalog	Master feed that contains basic part information such as part_id, manufacturer_code, manufacturer_name, manufacturer_part_no, etc.
At least one of the following pricing or cost related feeds: ● web_price ● book_price ● cost	**web_price**: Public published price shown on website, typically priced higher than book pricing. Note, if you are currently sending Supplyframe a web price feed for Findchips, a separate feed must be created for Supplyframe CPQ. **book_price**: Standard resale price, similar to MSRP, as published in a catalog, price list, or advertisement before any discounts are taken. **standard_cost**: Set cost paid to manufacturer or supplier to procure item inventory.

The following feeds are not required, but are recommended in order to provide the best experience for your users:

Feed Name	Description
customer_master	Master table containing basic customer account information such as unique identifiers for customer accounts and customer names
customer_contacts	Holds data related to contacts within customer accounts
catalog_metadata	Contains descriptive data related to parts in catalog
items_subitems	Contains item-subitem relationships between parts in the catalog table
contract_price	Contains contract pricing specific to your customer accounts
inventory	Contains available inventory for your part_id's in catalog
cross_references	Contains competitor cross references to your part_id's
Remaining pricing or cost feeds	Whichever remaining pricing or cost feeds described in the required feeds section above
packing_method	Contains packing methods used for your catalog items
currency_conversion _rate	Contains conversion rates between your defined default currency and other currencies that must be supported in CPQ

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Data Definitions

The following are the data definitions for each data feed mentioned above. Each section will give a high-level overview of the table, define the individual fields, and specify relations between tables.

Note that *all dates* included in your data feeds should follow the ISO 8601 standard, which is YYYY-MM-DD. For example, December 05, 2020 should be formatted as 2020-12-05.

Additionally, for required pricing and cost related feeds (book_price, web_price, standard_cost), out of the feed(s) that you elect to send to Supplyframe, at least one must contain prices or costs for all part_id's in catalog, in order to avoid scenarios where pricing cannot be served to users within Internal Sales or Self-Service.

catalog

Master table containing basic part information. If your instance of CPQ must support packing methods, load the packing_methods table first prior to loading catalog. Required fields are part_id, manufacturer_name, manufacturer_part_no, moq, and lead_time.

Field Name	Type	Required	Relations	Definition
part_id	Text	Yes	-	Unique identifier for item
manufacturer_cd	Text	No	-	Unique identifier for manufacturer
manufacturer_name	Text	Yes	-	Name of manufacturer
manufacturer_part_no	Text	Yes	-	Part number assigned by manufacturer
description	Text	No	-	Description of catalog item, character limit is 300
lifecycle_status	Text	No	-	Lifecycle status of the component
product	Text	No	-	Primary classification or type of part, defining its broadest grouping based on its core function or application
category	Text	No	-	Mid-level classification based on functional or technical grouping within a product type
subcategory	Text	No	-	Most specific classification based on attributes and functionality
uom	Text	No	-	Unit of measure for item
moq	Integer	Yes	-	Minimum order quantity
lead_time	Integer	Yes	-	Lead time in weeks
min_package_qty	Integer	No	-	Minimum quantities in which the item will be packaged
packing_method	Text	No	packing_method.packing_method	Method of enclosing, protecting, or providing physical structure to items in catalog
rohs_status	Boolean	No	-	Indicates the RoHS (Restriction of Hazardous Substances) compliance

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				status of a component - values should be either Yes/No or True/False and will map to either Compliant or Non-Compliant within our solution
country_of_origin	Text	No	-	The country where the component was manufactured, assembled, or underwent its last substantial transformation
reach_compliance	Boolean	No	-	Indicates compliance status with EU REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulations - values should be either Yes/No or True/False and will map to either Compliant or Non-Compliant within our solution
hts_code	Text	No	-	The Harmonized Tariff Schedule code for the component, used for international trade classification and duty determination
eccn	Text	No	-	Five-character alphanumeric code used to identify items for export control purposes, determining export licensing requirements and control levels for electronic components in international trade
tariff_type	Text	No	-	Tariff type that applies to your item
tariff_code	Text	No	-	Product-specific tariff code as documented in the Harmonized System (HS) maintained by the World Customs Organization (WCO)
designwin	Boolean	No	-	Indicates whether the part_id has a Design Win associated with it

catalog_metadata

This table stores attributes and data points about individual parts or products that are used in the quoting process. Common types of data stored in this table include part attributes such as compliance/certifications, specifications, configuration options; lifecycle data such as lifecycle stage, release date, end-of-life date; and part status. All fields are required.

Field Name	Type	Required	Relations	Definition
part_id	Text	Yes	catalog.part_id	Unique identifier for item
name	Text	Yes	-	Name of property
value	Text	Yes	-	Value of property

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items_subitems

This table contains item-subitem relationships between parts in the catalog table. Required fields are item, subitem, and quantity_per_item.

Field Name	Data Type	Required	Relations	Definition
item	Text	Yes	catalog.part_id	Distinct product that is made up of one or more component subitems. An item cannot be a subordinate subitem to another item
subitem	Text	Yes	catalog.part_id	An item that is used in the creation of a larger item or product. A subitem may be used in more than one item, but cannot contain additional subordinate subitems
quantity_per_item	Integer	Yes	-	The number of subitem units that are required per one unit of item
notes	Text	No	-	Description text about the subitem, character limit is 300
created_at	Date	No	-	Date and time when record was created

inventory

This table contains available inventory for your part_id's in the catalog table. All fields are required.

Field Name	Data Type	Required	Relations	Definition
part_id	Text	Yes	catalog.part_id	Unique identifier for item
stock	Integer	Yes	-	Quantity available for sale

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customer_master

Master table containing basic customer account information. Required fields are customer_id and customer_name.

Field Name	Type	Required	Relations	Definition
customer_id	Text	Yes	-	Unique identifier for customer account
customer_name	Text	Yes	-	Name of customer account
address	Text	No	-	Address of customer account
city	Text	No	-	City customer account is located in
state	Text	No	-	State customer account is located in
postal_code	Text	No	-	Postal code for customer account
country	Text	No	-	Country customer account is located in
country_code	Text	No	-	Country code for customer account, must use three-letter alphabetic code defined in ISO 3166 standard
region	Text	No	-	Geographic region of customer account
customer_type	Text	No	-	Type of customer account
customer_category	Text	No	-	Category customer account belongs to
currency_code	Text	No	currency_conversion_rate.iso_code	Preferred currency for customer account, must use three-letter alphabetic code defined in ISO 4217 standard
sales_org_id	Text	No	-	Sales organization responsible for customer account
sales_org_name	Text	No	-	Name of sales organization responsible for customer account

customer_metadata

This table stores attributes and data points about customers that are used in the quoting process. Common types of data stored in this table include account information like status and account manager; pricing information such as pricing tier, special pricing agreements, credit terms, and tax details; and contract data like expiration date, renewal terms, and compliance requirements. All fields are required.

Field Name	Type	Required	Relations	Definition
customer_id	Text	Yes	customer_master.customer_id	Unique identifier for customer account
name	Text	Yes	-	Name of property
value	Text	Yes	-	Value of property

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customer_contacts

This table holds data related to contacts at customer accounts. Required fields are customer_id, first_name, last_name, and email.

Field Name	Type	Required	Relations	Definition
customer_id	Text	Yes	customer_master.customer_id	Unique identifier for customer account
first_name	Text	Yes	-	First name of contact
last_name	Text	Yes	-	Last name of contact
email	Text	Yes	-	Email of contact
job_title	Text	No	-	Job title of contact
phone_no	Text	No	-	Phone number of contact
phone_type	Text	No	-	Phone number type (ex. mobile, work, fax)
address	Text	No	-	Address of customer contact
city	Text	No	-	City of customer contact
state	Text	No	-	State of customer contact
zip_code	Text	No	-	Zip code customer contact
country	Text	No	-	Country of customer contact
currency_code	Text	No	currency_conversion_rate.iso_code	Preferred currency for customer contact, must use three-letter alphabetic code defined in ISO 4217 standard

customer_part_numbers

Stores customer-specific part numbers that map to parts in your catalog, allowing our system to reference products using the customer's internal numbering system. Required fields are part_id, customer_part_number, and customer_id.

Field Name	Type	Required	Relations	Definition
part_id	Text	Yes	catalog.part_id	Unique identifier for item
customer_part_number	Text	Yes	-	Unique identifier for customer part number
customer_id	Text	Yes	customer_master.customer_id	Unique identifier for customer account
notes	Text	No	-	Notes related to customer part number, character limit is 300
is_preferred	Text	No	-	Designates the default catalog item to be used when a customer part number has multiple valid associations

registration_price

This table contains registration pricing for your customers. Required fields are customer_id, project_id, part_id, price, qty_break, valid_from, and valid_to.

Field Name	Type	Required	Relations	Definition
customer_id	Text	Yes	customer_master.customer_id	Unique identifier for customer account
end_customer_id	Text	No	customer_master.customer_id	End customer in relation to customer account
project_id	Text	Yes	-	Unique project ID for design registration project
registration_id	Text	No	-	Unique ID for items included in registration project
part_id	Text	Yes	catalog.part_id	Unique identifier for item
price	Numeric	Yes	-	Registration price for item
qty_break	Integer	Yes	-	Quantity break for registration price
valid_from	Date	Yes	-	Date from which registration price for item is valid
valid_to	Date	Yes	-	Date at which registration price for item is invalid
cost	Numeric	No	-	Registration cost for item
currency_code	Text	No	currency_conversion_rate.iso_code	Three-letter alphabetic code defined in ISO 4217 standard for representation of currencies. Default currency will be used if currency_code is not provided
last_updated	Date	No	-	Date of last update

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contract_price

This table contains contract pricing for customer accounts. Required fields are customer_id, part_id, price, qty_break, valid_from, and valid_to.

Field Name	Type	Required	Relations	Definition
customer_id	Text	Yes	customer_master.customer_id	Unique identifier for customer account
part_id	Text	Yes	catalog.part_id	Unique identifier for item
contract_name	Text	No	-	Name of the contract the price is related to
price	Numeric	Yes	-	The contract price for item
qty_break	Integer	Yes	-	Quantity break for item contract price
uom	Text	No	-	Unit of measure - this field has no relation to catalog
eau	Integer	No	-	Estimated annual usage
valid_from	Date	Yes	-	Date from which contract price for item is valid
valid_to	Date	Yes	-	Date at which contract price for item is invalid
currency_code	Text	No	currency_conversion_rate.iso_code	Three-letter alphabetic code defined in ISO 4217 standard for representation of currencies. Default currency will be used if currency_code is not provided
incoterms	Text	No	-	International Commercial Terms are standardized trade terms that define who is responsible for shipping costs, insurance, customs duties, and risk transfer when goods move between buyers and sellers internationally. Character limit is 300.
notes	Text	No	-	Any additional notes that may be relevant for the contract. Character limit is 300.
last_updated	Date	No	-	Date of last update

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web_price

This table holds all web pricing for your items. Required fields are part_id, price, qty_break, valid_from, and valid_to.

Field Name	Type	Required	Relations	Definition
part_id	Text	Yes	catalog.part_id	Unique identifier for item
price	Numeric	Yes	-	Web price of item
qty_break	Integer	Yes	-	Quantity break for item web price
valid_from	Date	Yes	-	Date from which web price for item is valid
valid_to	Date	Yes	-	Date at which web price for item is invalid
country_code	Text	No	-	Country for which pricing is valid, must use three-letter alphabetic code defined in ISO 3166 standard
currency_code	Text	No	currency_conversion_rate.iso_code	Three-letter alphabetic code defined in ISO 4217 standard for representation of currencies. Default currency will be used if currency_code is not provided
last_updated	Date	No	-	Date of last update

book_price

This table holds all book pricing for your items. Required fields are part_id, price, qty_break, valid_from, and valid_to.

Field Name	Type	Required	Relations	Definition
part_id	Text	Yes	catalog.part_id	Unique identifier for item
price	Numeric	Yes	-	Book price of item
qty_break	Integer	Yes	-	Quantity break for item book price
valid_from	Date	Yes	-	Date from which book price for item is valid
valid_to	Date	Yes	-	Date at which book price for item is invalid
country_code	Text	No	-	Country for which pricing is valid, must use three-letter alphabetic code defined in ISO 3166 standard
currency_code	Text	No	currency_conversion_rate.iso_code	Three-letter alphabetic code defined in ISO 4217 standard for representation of currencies. Default currency will be used if currency_code is not provided
last_updated	Date	No	-	Date of last update

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standard_cost

This table holds data related to the standard cost of items. Required fields are part_id, cost, qty_break, valid_from, and valid_to.

Field Name	Type	Required	Relations	Definition
part_id	Text	Yes	catalog.part_id	Unique identifier for item
cost	Numeric	Yes	-	Cost of item
qty_break	Integer	Yes	-	Quantity break for item cost
valid_from	Date	Yes	-	Date from which cost for item is valid
valid_to	Date	Yes	-	Date at which cost for item is invalid
country_code	Text	No	-	Country for which pricing is valid, must use three-letter alphabetic code defined in ISO 3166 standard
currency_code	Text	No	currency_conversion_rate.iso_code	Three-letter alphabetic code defined in ISO 4217 standard for representation of currencies. Default currency will be used if currency_code is not provided
last_updated	Date	No	-	Date of last update

cross_references

This table contains competitor cross references to your part ID's. Required fields are part_id, and xref_part_id.

Field Name	Type	Required	Relations	Definition
part_id	Text	Yes	catalog.part_id	Unique identifier for item
xref_part_id	Text	Yes	catalog.part_id	Unique identifier for cross reference
last_updated	Date	No	-	Date of last update
notes	Text	No	-	Notes related to cross reference relationship, character limit is 300

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packing_method

This table contains packing methods used for your catalog items. If your instance of CPQ must support packing methods, load the packing_methods table first prior to loading catalog. Packing Methods can be managed in System Settings. The only required field is packing_method.

Field Name	Type	Required	Relations	Definition
packing_method	Text	Yes	-	Method of enclosing, protecting, or providing physical structure to items in catalog
name	Text	No	-	Name of packing method
description	Text	No	-	Description of packing method

currency_conversion_rate

This table contains conversion rates between your defined default currency and other currencies that must be supported in CPQ. If the default currency is changed, all conversion rates must be adjusted accordingly. ISO codes listed in this table must follow ISO 4217 and should use the three letter alphabetic codes defined in this standard (eg. USD for U.S. dollar). Required fields are iso_code and conversion_rate.

Field Name	Type	Required	Relations	Definition
iso_code	Text	Yes	-	Three-letter alphabetic code defined in ISO 4217 standard for representation of currencies
conversion_rate	Numeric	Yes	-	Ratio between default currency and new currency
last_updated	Date	No	-	Date of last update

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assets

This table holds URLs for digital assets that will be accessible within the solution. Customers are responsible for storing and hosting the files themselves. Supplyframe CPQ does not enforce requirements for file format or type, as it does not handle the files directly. Required fields are name, url, entity_type, and entity_id.

Field Name	Type	Required	Definition
name	Text	Yes	Name of asset
url	Text	Yes	URL of asset
entity_type	Text	Yes	Only accepted values are “catalog” and “customer_master”; describes whether the asset is related to a part_catalog record or a customer account record
entity_id	Text	Yes	ID should be a part_id if asset is related to part_catalog record and should be a customer_id if asset is related to customer account record
description	Text	No	Short description of the asset

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order_history

This table holds transaction data related to prior orders. Required fields are customer_id, part_id, order_date, order_qty, and order_price.

Field Name	Type	Required	Relations	Definition
customer_id	Text	Yes	customer_master.customer_id	Unique identifier for customer account
end_customer_id	Text	No	customer_master.customer_id	End customer in relation to customer account
part_id	Text	Yes	catalog.part_id	Unique identifier for item
customer_part_no	Text	No	-	Customer part number for the ordered line item
sales_order_id	Text	No	-	Unique ID for sales order
sales_order_line_no	Integer	No	-	Line item number assigned to each line in the order, for reference purposes only
order_qty	Integer	Yes	-	Quantity ordered
order_date	Date	Yes	-	Date of order
order_price	Numeric	Yes	-	Price for item(s) per order quantity
project_id	Text	No	registration_price.project_id	Unique project ID for design registration project
registration_id	Text	No	registration_price.registration_id	Unique ID for items included in registration project
quote_id	Text	No	-	Unique identifier for quote
currency_code	Text	No	currency_conversion_rate.iso_code	Three-letter alphabetic code defined in ISO 4217 standard for representation of currencies. Default currency will be used if currency_code is not provided
open_order	Boolean	No	-	Indicates that a particular order_history record is included in an open order

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quote_history

This table contains transaction data related to prior quotes. Required fields are customer_id, part_id, quote_date, quote_qty, and quote_price.

Field Name	Type	Required	Relations	Definition
customer_id	Text	Yes	customer_master.customer_id	Unique identifier for customer account
end_customer_id	Text	No	customer_master.customer_id	End customer in relation to customer account
part_id	Text	Yes	catalog.part_id	Unique identifier for item
customer_part_no	Text	No	-	Customer part number for the quoted line item
quote_id	Text	No	-	Unique identifier for quote
quote_line_no	Text	No	-	Line item number assigned to each line in quote, for reference purposes only
quote_qty	Integer	Yes	-	Quoted quantity for item
quote_date	Date	Yes	-	Date that quote was submitted to customer
quote_price	Numeric	Yes	-	Price for item(s) per quoted quantity
project_id	Text	No	registration_price.project_id	Unique project ID for design registration project
registration_id	Text	No	registration_price.registration_id	Unique ID for items included in registration project
currency_code	Text	No	currency_conversion_rate.iso_code	Three-letter alphabetic code defined in ISO 4217 standard for representation of currencies. Default currency will be used if currency_code is not provided
child_type	Text	No	-	Indicates whether the line item is a child of a parent line item. If so, this field will be populated, and if not, this field will be null. If populated, valid values include “alternate” or “split.”

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Quote History Options

Supplyframe CPQ uses closed quotes in the application as quote history. Depending on the data management method you've selected, you can choose how you want to handle quote history based on your organization's needs.

If you choose *in-app-data-management*, administrators may upload new quote_history files at any time in the Quote History page. Data from quote_history files is kept separate from quote history data from closed quotes in the application.

Those who choose *automated feed processing* have two options:

1. ***Use CPQ Quote History***: During onboarding, upload your quote_history file to the shared FTP location one time to pre-populate your CPQ account with historic quote data, then remove from your file upload job moving forward. As your team begins to use CPQ, all future quote history will come from closed quotes in the app.

2. ***Use Your Own Quote History***: Upload quote_history file daily to the shared FTP location. Every time Supplyframe processes a new version of quote_history, all prior records are removed and are replaced with the contents of the latest file.

Data Feed Recommendations

If you elect to use the Automatic Feed Import data population method for your instance of CPQ, refer to the following recommendations and best practices for the export, publication, and integration of data feeds. The following does not apply if you elect to use in-app-data-management as your chosen data population method.

Supplyframe CPQ relies on these data feeds to populate the solution with up-to-date and contextual insights on part, inventory, customer, pricing, cost, quote, and order information utilized throughout the quoting process.

We will assume that all relevant entities are mapped, relationships between entities are well defined, definitions of all relevant terms are well known, and that the underlying mechanism for storing, querying and manipulating data is a traditional RDBMS.

Customer Data Integration Compliance

Supplyframe places utmost importance in ensuring that sensitive data is protected for all customers using our solutions. This means that Supplyframe employees will never have direct access to our customers' proprietary data.

To ensure your data is protected while we handle your feeds, we require our customers to provide access to test versions of each data feed that will be used in the solution.

Use Cases

During the onboarding process, Supplyframe must perform validations on your data and verify mapping prior to providing access to your instance of CPQ.

Additionally, in the event that we encounter issues with your feeds after onboarding, our team will be alerted, and we will reach out to you to request test data that matches the problematic feeds.

This test data will then be used to diagnose and troubleshoot the issues in coordination with your team.

Test Data Requirements

All test data must be representative of the production data in each feed and therefore must follow the same formatting and requirements. Also, the encoding that is used to generate the feeds must be communicated to our team.

It is important to note that this data will not be subject to Supplyframe's Data Processing Agreement. In addition, the same data retention and backup guarantees that apply to your production data will not apply to your test data.

Exposing Test Data

We recommend one of two options for exposing your test feeds to Supplyframe:

1. Customers can provision a separate SFTP account that is independent of the account that will be used to store production data feeds, and upload copies of each feed there.

2. Alternatively, customers may directly email Supplyframe test versions of each feed. If this option is used, please email them to our team at support@supplyframe.com.

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Feed File Format

Target feed file format should have the following characteristics:

- The data properly conveys information from the target system (the data is lossless).
- Information type is well defined (e.g. string, binary blob, etc.).
- Encoding is properly defined and respected (e.g. if the data is a string, it should be in UTF8 format; if the data is a blob, it should be a base64 encoded ASCII string).

Most common formats for feeds are CSV and TSV, but more structured formats like XML or JSON with corresponding schemas are acceptable. Ideally, files provided should be compressed with standard compression tools using compression algorithms like DEFLATE (zip, gzip) or Burrows–Wheeler algorithm (bzip2).

Exposing Feeds

When setting up your automated process to expose your feeds to Supplyframe, we recommend that the feed files are uploaded daily, during non-business hours. We advise against uploading only the delta files, it is a requirement that the uploads are full files.

Feeds should be exposed via FTP, FTPS, SFTP, or HTTP(S). If possible, we recommend using FTPS or SFTP. FTP and HTTP should not be used if other protocols are available.

If using FTP, we prefer that MLSD and MLST extensions are supported. If using HTTPS E-Tag header (or a custom header with a unique value corresponding to that file, derived via a low collision hashing algorithm), a header should be included.

If neither of the above is possible, a checksum file would suffice. This will enable us to query more frequently if the file has changed, while avoiding wasting bandwidth on transfer of the entire file.

The mechanisms by which feeds are exposed are also important to note. We recommend that atomic updating of the feeds is practiced. For example, the Linux `mv` command atomically moves files on the same filesystem (with some caveats). If the filesystem is non-local to the source filesystem, consider first copying a file as a temporary file to the same filesystem and then rename the file as is appropriate. If a group of files is moved, consider grouping them inside a directory first and then move them as is appropriate. Another suitable approach would be to use links via ln(1).

If possible, consider signing and encrypting files. Typically, tools such as GnuPG are used for such purposes. However, a custom encryption and hashing scheme can be agreed upon (provided that standard algorithms are used).

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Next Steps

Once your data feeds have been uploaded to the shared location, Supplyframe's job processor will automatically retrieve and process the new files. Upon completion, the data you and/or your customers see in the application will reflect the contents of the latest feed files.

Additionally, if you elect to purchase the Internal Sales component of Supplyframe CPQ, you can view your latest data within the application.

In the top navigation bar located on the top of the screen, use the Catalog, Customers, Conversion Rates, Price & Cost, and History tabs to search and view the data contained in each feed.

Note that catalog metadata and items/subitems can be viewed in the Item Details page of the Catalog tab, and customer metadata and contact information can be viewed in the Customer Details page of the Customers tab.